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(FILE 'HOME' ENTERED AT 09:20:35 ON 15 AUG 2007)

FILE 'CAPLUS, MEDLINE, EMBASE, BIOSIS, SCISEARCH' ENTERED AT 09:21:18 ON  
15 AUG 2007

L1	112	SEA	ABB=ON	PLU=ON	QIN NING/AU
L2	11	SEA	ABB=ON	PLU=ON	CODD ELLEN/AU
L3	11	DUP	REM L2	(0 DUPLICATES REMOVED)	
		DIS	L3 1-11	TI	SO
L4	2	SEA	ABB=ON	PLU=ON	"ALPHA2 DELTA CALCIUM CHANNEL SUBUNIT"
L5	2	DUP	REM L4	(0 DUPLICATES REMOVED)	
		DIS	L5 1-2	IBIB	ABS
L6	2	SEA	ABB=ON	PLU=ON	"ALPHA DELTA CALCIUM CHANNEL"
L7	1094	SEA	ABB=ON	PLU=ON	ALPHA (S) DELTA (S) CALCIUM (S) CHANNEL
L8	19254	SEA	ABB=ON	PLU=ON	GABAPENTIN OR NEURONTIN
L9	373	SEA	ABB=ON	PLU=ON	L7 AND L8
L10	303	SEA	ABB=ON	PLU=ON	L7 (P) L8
L11	191	SEA	ABB=ON	PLU=ON	L7 (S) L8
L12	67	SEA	ABB=ON	PLU=ON	L11 AND HUMAN
L13	46	DUP	REM L12	(21 DUPLICATES REMOVED)	
		DIS	L13 20-46	TI	SO AU

## EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	19	Qin adj Ning	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2007/08/15 09:10
L2	52	Codd adj Ellen	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2007/08/15 09:11
L3	705	"voltage gated calcium channel"	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2007/08/15 09:12
L4	83	"alpha 2 delta subunit"	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2007/08/15 09:13
L5	22	I3 and I4	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2007/08/15 09:15
L6	1	"alpha 2 delta 4 subunit"	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2007/08/15 09:16
L7	0	"alpha 2 delta 4 calcium channel"	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2007/08/15 09:17
L8	6	"alpha2 delta4 calcium channel"	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2007/08/15 09:17

Seq ID # 10

&lt;!--StartFragment--&gt;RESULT 3

AAY92321

ID AAY92321 standard; protein; 1120 AA.

XX

AC AAY92321;

XX

DT 10-AUG-2000 (first entry)

XX

DE Human alpha-2-delta-D calcium channel subunit.

XX

KW alpha-2-delta-D; calcium channel subunit; 3p21.1; gabapentin; cytostatic;  
KW anticonvulsant; antimigrane; antiparkinsonian; antidepressant.

XX

OS Homo sapiens.

XX

PN WO200020450-A2.

XX

PD 13-APR-2000.

XX

PF 07-OCT-1999; 99WO-US023519.

XX

PR 07-OCT-1998; 98US-0103322P.

PR 30-OCT-1998; 98US-0106473P.

PR 29-DEC-1998; 98US-0114088P.

XX

PA (WARN ) WARNER LAMBERT CO.

XX

PI Johns MA, Moldover B, Offord JD;

XX

DR WPI; 2000-303744/26.

DR N-PSDB; AAA09254.

XX

PT New human nucleic acids encoding the alpha2delta-C and alpha2delta-D  
PT proteins, useful in the treatment of epilepsy, migraine, chronic pain,  
PT anxiety, multiple sclerosis or cancer.

XX

PS Claim 8; Page 67; 88pp; English.

XX

CC The alpha-2-delta-D gene encodes a calcium channel subunit polypeptide.  
 CC The gene has been mapped to chromosome 12p13.1. This gene and the related  
 CC alpha-2-delta-C and -B genes are useful for protecting mammalian cells  
 CC from abnormal calcium flux by introducing expression vectors containing  
 CC the respective gene into mammalian cells. The antisense genes are also  
 CC useful for treating or preventing epilepsy. The alpha-delta-2-A protein  
 CC is a high-affinity binding target of the anti-convulsant drug gabapentin.  
 CC Therefore, alpha-delta-2 proteins may also be targeted to treat seizure-  
 CC related syndromes, migraine, ataxia, vestibular defects, chronic pain,  
 CC sleep interference, anxiety, amyotrophic lateral sclerosis (ALS), multiple  
 CC sclerosis, mania, tremor, parkinsonism, substance abuse or addiction  
 CC syndromes, mood, depression or cancer

XX

SQ Sequence 1120 AA;

Query Match 94.1%; Score 5386.5; DB 3; Length 1120;

Best Local Similarity 98.0%; Pred. No. 0;

Matches 1033; Conservative 5; Mismatches 13; Indels 3; Gaps 2;

Qy 11 DRVKLWADTFGGDLNTVTKYSGSLLLQKKYKDVESSLKIEEVDGLELVRKFSEDMENML 70

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 Db 58 ETVKLWADTFGGDLNTVTKYSGSLLLQKKYKDVESSLKIEEVDGLELVRKFSEDMENML 117

60

Qy	71	RRKVEAVQNLVEAAEEADLNHEFNESLVFDYNSVLINERDEKGNFVELGAEFLLESNAH	130
Db	118	RRKVEAVQNLVEAAEEADLNHEFNESLVFDYNSVLINERDEKGNFVELGAEFLLESNAH	177
Qy	131	FSNLPVNTSISVVQLPTNVYNKDPDILNGVYMSEALNAVFVENFQRDPTLTWQYFGSATG	190
Db	178	FSNLPVNTSISVVQLPTNVYNKDPDILNGVYMSEALNAVFVENFQRDPTLTWQYFGSATG	237
Qy	191	FFRIYPGIKWTPDENGVITFDCRNRGWYIQAATSPKDIVILVDVSGSMKGLRMTIAKHTI	250
Db	238	FFRIYPGIKWTPDENGVITFDCRNRGWYIQAATSPKDIVILVDVSGSMKGLRMTIAKHTI	297
Qy	251	TTILDTLGENDFVNI IAYNDYVHYIEPCFKGILVQADRDNREHFKLLVEELMVKGVGVD	310
Db	298	TTILDTLGENDFVNI IAYNDYVHYIEPCFKGILVQADRDNREHFKLLVEELMVKGVGVD	357
Qy	311	QALREAFQILKQFQEAQGSCLNQAIMLISDGAVEDYEPVFEKYNWPDCKVRVFTYLIGR	370
Db	358	QALREAFQILKQFQEAQGSCLNQAIMLISDGAVEDYEPVFEKYNWPDCKVRVFTYLIGR	417
Qy	371	EVSFADRMKWIACNNKGYTQISTLADTQENVMEYLHVLSRPMVINHDHDIWTEAYMDS	430
Db	418	EVSFADRMKWIACNNKGYTQISTLADTQENVMEYLHVLSRPMVINHDHDIWTEAYMDS	477
Qy	431	KLLSSQAQSLTLLTTVAMPVFSKKNETRSHGILLGVVGS DVALRELMKLAPRYKLGVBHY	490
Db	478	KLLSSQAQSLTLLTTVAMPVFSKKNETRSHGILLGVVGS DVALRELMKLAPRYKLGVBHY	537
Qy	491	AFLNTNNGYILSHPDLRPLYREGKKLKPKPNYNSVDLSEVEWEDQAESLRTAMINRETGT	550
Db	538	AFLNTNNGYILSHPDLRPLYREGKKLKPKPNYNSVDLSEVEWEDQAESLRTAMINRETGT	597
Qy	551	LSMDVKVPMDKGKRVLF LTNDYFFTDISDTPFSLGAVLSRGHGEYILLGNTSVEEGLHDL	610
Db	598	LSMDVKVPMDKGKRVLF LTNDYFFTDISDTPFSLGAVLSRGHGEYILLGNTSVEEGLHDL	657
Qy	611	LHPDLALAGDWIYCITDIDPDHRKLSQLEAMIRFLTRKDPDLECEELVREVLFDVAVTA	670
Db	658	LHPDLALAGDWIYCITDIDPDHRKLSQLEAMIRFLTRKDPDLECEELVREVLFDVAVTA	717
Qy	671	PMEAYWTALALNMSESESHVVDMAFLGTRAGLLRSSLFVGSEKVS DRKFLTPEDEASVFT	730
Db	718	PMEAYWTALALNMSESESHVVDMAFLGTRAGLLRSSLFVGSEKVS DRKFLTPEDEASVFT	777
Qy	731	LDRFPLWYRQASEHPAGSFVFNLRWAEGPESAGEPMVVTASTAVAVTVDKRTAIAAAAGV	790
Db	778	LDRFPLWYRQASEHPAGSFVFNLRWAEGPESAGEPMVVTASTAVAVTVDKRTAIAAAAGV	837
Qy	791	QMKLEFLQRKFWAATRQCSTVDGPYTQSCEDSDLD CFVIDNNGFILISKRSRETGRFLGE	850
Db	838	QMKLEFLQRKFWAATRQCSTVDGPCTQSCEDSDLD CFVIDNNGFILISKRSRETGRFLGE	897
Qy	851	VDGAVLTQLLSMGVFSQVTMYDYQAMCKPSSHHSAAQPLVSPISAF LTATRWLLQELVL	910
Db	898	VDGAVLTQLLSMGVFSQVTMYDYQAMCKPSSHHSAAQPLVSPISAF LTATRWLLQELVL	957
Qy	911	FLLEWSVWGSWYDRGAEAKSVFHHSHKHKKQDPLQPCDTEYPVFVYQPAIREANGIVECG	970
Db	958	FLLEWSVWGSWYDRGAEAKSVFHHSHKHKKQDPLQPCDTEYPVFVYQPAIREANGIVECG	1017
Qy	971	PCQKV FVVQQIPNSNLLLLVTDP TCDCSIFPPVLQEATEVKYNASVKCDRMRSQKLRRRP	1030

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Db      1018 PCQKVFVVQQIPNSNLLLLVTDPTCDCSIFPPVLQEATEVKYNASVKCDRMRSQKLRRRP 1077
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Seq ID #9  
nucleic acid

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<!--StartFragment-->RESULT 3
AAA09254
ID   AAA09254 standard; cDNA; 5073 BP.
XX
AC   AAA09254;
XX
DT   10-AUG-2000 (first entry)
XX
DE   Human alpha-2-delta-D gene.
XX
KW   alpha-2-delta-D; calcium channel; 12p13.3; gabapentin; cytostatic;
KW   anticonvulsant; antimigrane; antiparkinsonian; antidepressant; ss.
XX
OS   Homo sapiens.
XX
FH   Key          Location/Qualifiers
FT   CDS          3..3365
FT               /*tag= a
XX
PN   WO200020450-A2.
XX
PD   13-APR-2000.
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PF   07-OCT-1999; 99WO-US023519.
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PR   07-OCT-1998; 98US-0103322P.
PR   30-OCT-1998; 98US-0106473P.
PR   29-DEC-1998; 98US-0114088P.
XX
PA   (WARN ) WARNER LAMBERT CO.
XX
PI   Johns MA, Moldover B, Offord JD;
XX
DR   WPI; 2000-303744/26.
DR   P-PSDB; AAY92321.
XX
PT   New human nucleic acids encoding the alpha2delta-C and alpha2delta-D
PT   proteins, useful in the treatment of epilepsy, migraine, chronic pain,
PT   anxiety, multiple sclerosis or cancer.
XX
PS   Claim 1; Page 64-66; 88pp; English.
XX
CC   The alpha-2-delta-D gene encodes a calcium channel subunit polypeptide.
CC   The gene has been mapped to chromosome 12p13.1. This gene and the related
CC   alpha-2-delta-C and -B genes are useful for protecting mammalian cells
CC   from abnormal calcium flux by introducing expression vectors containing
CC   the respective gene into mammalian cells. The antisense genes are also
CC   useful for treating or preventing epilepsy. The alpha-delta-2-A protein
CC   is a high-affinity binding target of the anti-convulsant drug gabapentin.
CC   Therefore, alpha-delta-2 proteins may also be targeted to treat seizure-
CC   related syndromes, migraine, ataxia, vestibular defects, chronic pain,
CC   sleep interference, anxiety, amyotrophic lateral sclerosis (ALS), multiple
CC   sclerosis, mania, tremor, parkinsonism, substance abuse or addiction
CC   syndromes, mood, depression or cancer
XX
SQ   Sequence 5073 BP; 1280 A; 1390 C; 1347 G; 1056 T; 0 U; 0 Other;

Query Match          88.5%; Score 3085.6; DB 3; Length 5073;
Best Local Similarity 98.8%; Pred. No. 0;
Matches 3109; Conservative 0; Mismatches 39; Indels 0; Gaps 0;

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225  
179

QY	219	GGACAGAGTGAAGCTATGGGCTGACACCTTCGGCGGGGACCTGTATAAACTGTGACCAA	278
Db	173	GGAAACAGTGAAGCTATGGGCTGACACCTTCGGCGGGGACCTGTATAAACTGTGACCAA	232
QY	279	ATACTCAGGCTCTCTCTTGCTGCAGAAGAAGTACAAGGATGTGGAGTCCAGTCTGAAGAT	338
Db	233	ATACTCAGGCTCTCTCTTGCTGCAGAAGAAGTACAAGGATGTGGAGTCCAGTCTGAAGAT	292
QY	339	CGAGGAGGTGGATGGCTTGGAGCTGGTGAGGAAGTTCTCAGAGGACATGGAGAACATGCT	398
Db	293	CGAGGAGGTGGATGGCTTGGAGCTGGTGAGGAAGTTCTCAGAGGACATGGAGAACATGCT	352
QY	399	GCGGAGGAAAGTCGAGGCGGTCCAGAATCTGGTGGAAGCTGCCGAGGAGGCCGACCTGAA	458
Db	353	GCGGAGGAAAGTCGAGGCGGTCCAGAATCTGGTGGAAGCTGCCGAGGAGGCCGACCTGAA	412
QY	459	CCACGAATTCAATGAATCCCTGGTGTTCGACTATTACAACCTCGGTCCTGATCAACGAGAG	518
Db	413	CCACGAATTCAATGAATCCCTGGTGTTCGACTATTACAACCTCGGTCCTGATCAACGAGAG	472
QY	519	GGACGAGAAGGGCAACTTCGTGGAGCTGGGCGCCGAGTTCCTCCTGGAGTCCAATGCTCA	578
Db	473	GGACGAGAAGGGCAACTTCGTGGAGCTGGGCGCCGAGTTCCTCCTGGAGTCCAATGCTCA	532
QY	579	CTTCAGCAACCTGCCGGTGAACACCTCCATCAGCAGCGTGCAGCTGCCACCAACGTGTA	638
Db	533	CTTCAGCAACCTGCCGGTGAACACCTCCATCAGCAGCGTGCAGCTGCCACCAACGTGTA	592
QY	639	CAACAAAGACCCAGATATTTTAAATGGAGTCTACATGTCTGAAGCCTTGAATGCTGTCTT	698
Db	593	CAACAAAGACCCAGATATTTTAAATGGAGTCTACATGTCTGAAGCCTTGAATGCTGTCTT	652
QY	699	CGTGAGAGAACTTCCAGAGAGACCCAACGTTGACCTGGCAATATTTTGGCAGTGCAACTGG	758
Db	653	CGTGAGAGAACTTCCAGAGAGACCCAACGTTGACCTGGCAATATTTTGGCAGTGCAACTGG	712
QY	759	ATTCTTCAGGATCTATCCAGGTATAAAATGGACACCTGATGAGAATGGAGTCATTACTTT	818
Db	713	ATTCTTCAGGATCTATCCAGGTATAAAATGGACACCTGATGAGAATGGAGTCATTACTTT	772
QY	819	TGACTGCCGAAACCGCGGCTGGTACATTCAAGCTGCTACTTCTCCAAGGACATAGTGAT	878
Db	773	TGACTGCCGAAACCGCGGCTGGTACATTCAAGCTGCTACTTCTCCAAGGACATAGTGAT	832
QY	879	TTTGGTGGACGTGAGCGGCAGTATGAAGGGGCTGAGGATGACTATTGCCAAGCACACCAT	938
Db	833	TTTGGTGGACGTGAGCGGCAGTATGAAGGGGCTGAGGATGACTATTGCCAAGCACACCAT	892
QY	939	CACCACCATCTTGGACACCCTGGGGGAGAATGACTTCGTTAATATCATAGCGTACAATGA	998
Db	893	CACCACCATCTTGGACACCCTGGGGGAGAATGACTTCGTTAATATCATAGCGTACAATGA	952
QY	999	CTACGTCCATTACATCGAGCCTTGTTTTAAAGGGATCCTCGTCCAGGCGGACCGAGACAA	1058
Db	953	CTACGTCCATTACATCGAGCCTTGTTTTAAAGGGATCCTCGTCCAGGCGGACCGAGACAA	1012
QY	1059	TCGAGAGCATTTCAAACCTGCTGGTGGAGGAGTTGATGGTCAAAGGTGTGGGGGTCTGTGA	1118
Db	1013	TCGAGAGCATTTCAAACCTGCTGGTGGAGGAGTTGATGGTCAAAGGTGTGGGGGTCTGTGA	1072
QY	1119	CCAAGCCCTGAGAGAAGCCTTCCAGATCCTGAAGCAGTTCCAAGAGGCCAAGCAAGGAAG	1178

1

Db	1073	 CCAAGCCCTGAGAGAAGCCTTCCAGATCCTGAAGCAGTTCCAAGAGGCCAAGCAAGGAAG	1132
Qy	1179	 CCTCTGCAACCAGGCCATCATGCTCATCAGCGACGGCGCCGTGGAGGACTACGAGCCGGT	1238
Db	1133	 CCTCTGCAACCAGGCCATCATGCTCATCAGCGACGGCGCCGTGGAGGACTACGAGCCGGT	1192
Qy	1239	 GTTTGAGAAGTATAAAGTGGCCAGACTGTAAGGTCCGAGTTTTCACCTTACCTCATTGGGAG	1298
Db	1193	 GTTTGAGAAGTATAAAGTGGCCAGACTGTAAGGTCCGAGTTTTCACCTTACCTCATTGGGAG	1252
Qy	1299	 AGAAGTGTCTTTTGCTGACCGCATGAAGTGGATTGCATGCAACAACAAAGGCTACTACAC	1358
Db	1253	 AGAAGTGTCTTTTGCTGACCGCATGAAGTGGATTGCATGCAACAACAAAGGCTACTACAC	1312
Qy	1359	 GCAGATCTCAACGCTGGCGGACACCCAGGAGAACGTGATGGAATACCTGCACGTGCTCAG	1418
Db	1313	 GCAGATCTCAACGCTGGCGGACACCCAGGAGAACGTGATGGAATACCTGCACGTGCTCAG	1372
Qy	1419	 CCGCCCCATGGTCATCAACCACGACCACGACATCATCTGGACAGAGGCCTACATGGACAG	1478
Db	1373	 CCGCCCCATGGTCATCAACCACGACCACGACATCATCTGGACAGAGGCCTACATGGACAG	1432
Qy	1479	 CAAGCTCCTCAGCTCGCAGGCTCAGAGCCTGACACTGCTCACCCTGTGGCCATGCCAGT	1538
Db	1433	 CAAGCTCCTCAGCTCGCAGGCTCAGAGCCTGACACTGCTCACCCTGTGGCCATGCCAGT	1492
Qy	1539	 CTTCAGCAAGAAGAACGAAACGCGATCCCATGGCATTCTCCTGGGTGTGGTGGGCTCAGA	1598
Db	1493	 CTTCAGCAAGAAGAACGAAACGCGATCCCATGGCATTCTCCTGGGTGTGGTGGGCTCAGA	1552
Qy	1599	 TGTGGCCCTGAGAGAGCTGATGAAGCTGGCGCCCCGGTACAAGCTTGGAGTGCACGGATA	1658
Db	1553	 TGTGGCCCTGAGAGAGCTGATGAAGCTGGCGCCCCGGTACAAGCTTGGAGTGCACGGATA	1612
Qy	1659	 CGCCTTTCTGAACACCAACAATGGCTACATCCTCTCCCATCCCGACCTCCGGCCCCCTGTA	1718
Db	1613	 CGCCTTTCTGAACACCAACAATGGCTACATCCTCTCCCATCCCGACCTCCGGCCCCCTGTA	1672
Qy	1719	 CAGAGAGGGGAAGAACTAAAACCCAAACCTAACTACAACAGTGTGGATCTCTCCGAAGT	1778
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Qy	1779	 GGAGTGGGAAGACCAGGCTGAATCTCTGAGAACAGCCATGATCAATAGGGAACAGGTAC	1838
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Qy	1839	 TCTCTCGATGGATGTGAAGGTTCCGATGGATAAAGGGAAGCGAGTTCTTTTCTGACCAA	1898
Db	1793	 TCTCTCGATGGATGTGAAGGTTCCGATGGATAAAGGGAAGCGAGTTCTTTTCTGACCAA	1852
Qy	1899	 TGACTACTTCTTCACGGACATCAGCGACACCCCTTTCAGTTTGGGGGCGGTGCTGTCCCG	1958
Db	1853	 TGACTACTTCTTCACGGACATCAGCGACACCCCTTTCAGTTTGGGGGCGGTGCTGTCCCG	1912
Qy	1959	 GGGCCACGGAGAATACATCCTTCTGGGGAACACGTCTGTGGAAGAAGGCCTGCATGACTT	2018
Db	1913	 GGGCCACGGAGAATACATCCTTCTGGGGAACACGTCTGTGGAAGAAGGCCTGCATGACTT	1972
Qy	2019	 GCTTCACCCAGACCTGGCCCTGGCCGGTGACTGGATCTACTGCATCAGAGATATTGACCC	2078



Db	1973	GCTTCACCCAGACCTGGCCCTGGCCGGTGACTGGATCTACTGCATCACAGATATTGACCC	2032
QY	2079	AGACCACCGGAAGCTCAGCCAGCTAGAGGCCATGATCCGCTTCCTCACCAGGAAGGACCC	2138
Db	2033	AGACCACCGGAAGCTCAGCCAGCTAGAGGCCATGATCCGCTTCCTCACCAGGAAGGACCC	2092
QY	2139	AGACCTGGAGTGTGACGAGGAGCTGGTCCGGGAGGTGCTGTTTGACGCGGTGGTGACAGC	2198
Db	2093	AGACCTGGAGTGTGACGAGGAGCTGGTCCGGGAGGTGCTGTTTGACGCGGTGGTGACAGC	2152
QY	2199	CCCATGGAAGCCTACTGGACAGCGCTGGCCCTCAACATGTCCGAGGAGTCTGAACACGT	2258
Db	2153	CCCATGGAAGCCTACTGGACAGCGCTGGCCCTCAACATGTCCGAGGAGTCTGAACACGT	2212
QY	2259	GGTGGACATGGCCTTCCTGGGCACCCGGGCTGGCCTCCTGAGAAGCAGCTTGTTTCGTGGG	2318
Db	2213	GGTGGACATGGCCTTCCTGGGCACCCGGGCTGGCCTCCTGAGAAGCAGCTTGTTTCGTGGG	2272
QY	2319	CTCCGAGAAGGTCTCCGACAGGAAGTTCCTGACACCTGAGGACGAGGCCAGCGTGTTAC	2378
Db	2273	CTCCGAGAAGGTCTCCGACAGGAAGTTCCTGACACCTGAGGACGAGGCCAGCGTGTTAC	2332
QY	2379	CCTGGACCGCTTCCCGCTGTGGTACCGCCAGGCCTCAGAGCATCCTGCTGGCAGCTTCGT	2438
Db	2333	CCTGGACCGCTTCCCGCTGTGGTACCGCCAGGCCTCAGAGCATCCTGCTGGCAGCTTCGT	2392
QY	2439	CTTCAACCTCCGCTGGGCAGAAAGGACCAGAAAGTGCGGGTGAACCCATGGTGGTGACGGC	2498
Db	2393	CTTCAACCTCCGCTGGGCAGAAAGGACCAGAAAGTGCGGGTGAACCCATGGTGGTGACGGC	2452
QY	2499	AAGCACAGCTGTGGCGGTGACCGTGGACAAGAGGACAGCCATTGCTGCAGCCGCGGGCGT	2558
Db	2453	AAGCACAGCTGTGGCGGTGACCGTGGACAAGAGGACAGCCATTGCTGCAGCCGCGGGCGT	2512
QY	2559	CCAAATGAAGCTGGAATTCTCCAGCGCAAATTCTGGGCGGCAACGCGGCAGTGCAGCAC	2618
Db	2513	CCAAATGAAGCTGGAATTCTCCAGCGCAAATTCTGGGCGGCAACGCGGCAGTGCAGCAC	2572
QY	2619	TGTGGATGGGCGGTACACACAGAGCTGCGAGGACAGTGATCTGGACTGCTTCGTTCATCGA	2678
Db	2573	TGTGGATGGGCGGTACACACAGAGCTGCGAGGACAGTGATCTGGACTGCTTCGTTCATCGA	2632
QY	2679	CAACAACGGGTTTCATTCTGATCTCCAAGAGGTCCCGAGAGACGGGAAGATTTCTGGGGGA	2738
Db	2633	CAACAACGGGTTTCATTCTGATCTCCAAGAGGTCCCGAGAGACGGGAAGATTTCTGGGGGA	2692
QY	2739	GGTGGATGGTGCTGTCTGACCCAGCTGCTCAGCATGGGGGTGTTTCAGCCAAGTGACTAT	2798
Db	2693	GGTGGATGGTGCTGTCTGACCCAGCTGCTCAGCATGGGGGTGTTTCAGCCAAGTGACTAT	2752
QY	2799	GTATGACTATCAGGCCATGTGCAAACCTCGAGTCACCACCACAGTGCAGCCCAGCCCCCT	2858
Db	2753	GTATGACTATCAGGCCATGTGCAAACCTCGAGTCACCACCACAGTGCAGCCCAGCCCCCT	2812
QY	2859	GGTCAGCCCAATTTCTGCCTTCTTGACGGCGACCAGGTGGCTGCTGCAGGAGCTGGTGCT	2918
Db	2813	GGTCAGCCCAATTTCTGCCTTCTTGACGGCGACCAGGTGGCTGCTGCAGGAGCTGGTGCT	2872
QY	2919	GTTCTGCTGGAGTGGAGTGTCTGGGGCTCCTGGTACGACAGAGGGGCCGAGGCCAAAAG	2978
Db	2873	GTTCTGCTGGAGTGGAGTGTCTGGGGCTCCTGGTACGACAGAGGGGCCGAGGCCAAAAG	2932

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Qy      2979 TGTCTTCCATCACTCCCACAAACACAAGAAGCAGGACCCGCTGCAGCCCTGCGACACGGA 3038
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Qy      3039 GTACCCCGTGTTTCGTGTACCAGCCGGCCATCCGGGAGGCCAACGGGATCGTGAGTGCGG 3098
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Db      2993 GTACCCCGTGTTTCGTGTACCAGCCGGCCATCCGGGAGGCCAACGGGATCGTGAGTGCGG 3052
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Qy      3159 GACAGACCCACCTGTGACTGCAGCATCTTCCCACAGTGCTGCAGGAGGCGACAGAAGT 3218
      |||
Db      3113 GACAGACCCACCTGTGACTGCAGCATCTTCCCACAGTGCTGCAGGAGGCGACAGAAGT 3172
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Qy      3219 CAAATATAATGCCTCTGTCAAATGTGACCGGATGCGCTCCAGAAAGCTCCGCCGGCGACC 3278
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Qy      3279 AGACTCCTGCCACGCCTTCCATCCAGAGGTGCGGGTTGAGGCGGATCGAGGGTGGGCTGG 3338
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